The course is structured to provide students with a first hand knowledge of econometrics, both its uses and abuses. Goals for the course are for students who complete the course to be able to conduct their own research project, where they analyze economic phenomenon using real data.

**Texts: None Required.**

Extensive lecture notes will be provided.

**Recommended for those who find texts useful:**


**Alternative Text:**


These should be available online. Used versions often go for less than half what the bookstore charges.

**Course Outline**

We will cover the basic regression model and hypothesis testing in a perfect world, in which all the assumptions underlying the use of ordinary least squares regression are true. This is part I of the course and should take up most of the first half of the semester. Then we will look at how violations of each of the assumptions affect performance of regression. Finally, we will examine the analysis of qualitative responses, such as did you pass this course or not, and time permitting cover use of regression models in forecasting.
Part I. The Basic Regression Model

An Overview of Regression Analysis
Ordinary Least Squares
Learning to Use Regression Analysis
The Classical Model

First Midterm
Hypothesis Testing

Part II. Violations of the Classical Assumptions

Specification: Choosing the Independent Variables
Specification: Choosing a Functional Form
Multicollinearity

Second Midterm
Serial Correlation
Heteroskedasticity
Dummy Dependent Variable Techniques
Forecasting

Final Exam
Course Organization

Grading

Values of course activities in final grade calculations

<table>
<thead>
<tr>
<th>Activity</th>
<th>Value in final grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homeworks &amp; Labs</td>
<td>40%</td>
</tr>
<tr>
<td>1st Midterm Exam</td>
<td>20%</td>
</tr>
<tr>
<td>2nd Midterm Exam</td>
<td>20%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>20%</td>
</tr>
</tbody>
</table>

Homeworks & Labs

Homeworks and/or labs will be given approximately every week. Many will include computer work as well as answers to questions. Students are required to work together on the homework/lab material in specified groups. Each group will submit one set of answers for each homework or lab and all members of the group will receive the same grade.

Class Participation

Students who become involved in class learn more. Students are strongly encouraged to ask questions in class.

Tests

The midterms and final will constitute 60% of your total grade. You will be given review questions before each exam and a review session will be held in which answers to the review questions will be discussed.
Econometric software

We will be using Excel to do most of the homework and lab exercises. This will require some patience, but all of you will have access to Excel when you are done with this class and your studies at Purdue, so if you when you have to do what you learned in the class you will be able to do so.

Email

I will occasionally communicate with the class using email. I will try to remember to use my Purdue account for all emails to the class.

Students with Disabilities

Please make an appointment within the first three weeks of the semester for a visit in my office to discuss the appropriateness of the instructional methods in this class or any academic adjustments that you may require. It is important that we talk about this at the beginning of the semester.

Instructor

James Eales
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Home: 743-4009
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Office Hours

To be arranged.